UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8
999 18TH STREET- SUITE 300
DENVER, CO 80202-2466
Phone 800-227-8917
http://www.epa.gov/region08

APR 2 2 2005

Ref:

Steve Kozel, District Ranger
121 S. 21 Street
Sundance, Wyoming 82729

Re: "Dean Project Area" DEIS, Black Hills National Forest, Bearlodge Ranger District, Crook County, Wyoming, CEQ #20050086

Dear Mr. Kozel:

The U.S. Environmental Protection Agency Region 8 (EPA) has reviewed the "Dean Project Area" Draft Environmental Impact Statement (DEIS) in accordance with our responsibilities, under the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act, to evaluate the overall impacts to human and natural environments.

EPA notes that the proposed harvest and treatment acreage associated with this project, and cumulatively with the proposed Project, are significant in their geographic extent, and that the Forest Service attempted to balance statutory requirements, public input, and stakeholder interests in both projects. We offer a number of comments and questions to provide further clarification in the Final EIS and suggestions to reduce the adverse impacts to natural resources and the environment.

The Preferred Action, Alternative C, proposes to commercially harvest and thin up to 5,730 acres in approximately a 12,500-acre project area of National Forest lands. Practices such as lopping, chipping, crushing, piling, burning, and prescribed burning may occur on up to about 3,500 acres. Forest vegetation will be treated to address fire hazard and fuels reduction needs that exist in the project area. Other key issues include travel management and motorized and non-motorized recreation opportunities, and wildlife habitat impacts. The Preferred Alternative is stated to emphasize fire and fuels hazard reduction in that it, "aggressively treats forest vegetation to reduce the fire and fuels hazards that currently exist in the project area" (page v).

EPA is concerned about existing water quality and potential impacts from the proposed actions to additional runoff, erosion, and sediment impacts to streams and riparian resources. We have substantial water quality concerns because of the high road density and the related evidence of sediment, fecal coliform, and other pollutants that may be degrading water quality sufficiently to threaten or limit designated water body uses, based on the information about water quality impacts in the DEIS. The high road density in the project area contributes to our concerns.

Another significant concern of EPA is the precedent proposed in the Preferred Alternative to implement a one-time, site-specific Forest Plan Amendment to change the Management Area (MA) designation in a substantial portion of the project area from "big game winter range emphasis" to "forest products, recreation, and big game emphasis" (page vi). We also noted the change in the northern goshawk management standard, despite disclosure that goshawk trends generally indicate that the species may be declining. We are particularly concerned that the proposal to change standards that weaken environmental protections is made at a project level while the Phase II Amendment DEIS is in the public review process concurrently. The fact that the lands are currently designated as big game emphasis, and that part of the change in MA designation includes a determination of whether to amend the Revised Forest Plan "in one or more goshawk post-fledging areas" (page viii), indicates the current role of this particular MA for wildlife habitat and recreation.

We also are concerned about the potential cumulative impacts associated with the proposed changes to the MA designation. A series of recent projects (e.g., Prairie; Elk, Bugs and Fuels; Bugtown Gulch to name a few) have been proposed to aggressively cut large-diameter and other trees for fuels reduction, which is partly antithetical to forest management that minimizes large-scale fire risks (with large ponderosa pine and other trees generally less susceptible to ignition or destruction). Significant habitat alteration has been noted in this and other recent EISs in the Black Hills National Forest, with population declines for sensitive wildlife generally noted and not mitigated. The endemic population of American dipper has declined to about 100 individuals, for example. Large trees and old-growth structure were noted to be declining in recent projects. Soil erosion impacts and the related potential for additional sedimentation were not evaluated in this DEIS, nor were fecal coliform bacteria or other pollutants described.

We offer several comments and questions in our specific comments (enclosed) to further clarify information in the Final EIS. We suggest that the FEIS include the following information:

- Quantify soil erosion and stream sedimentation impacts to better understand the differences among alternatives and to confirm that adverse impacts will be fully mitigated. The current information does not provide such assurances.

- Quantify wildlife and habitat impacts. The DEIS does not clearly support a conclusion that the Preferred Alternative will not adversely affect a number of affected species while providing only slightly greater reductions of forest fire risk.

- Focus the fire risk-reduction treatments in private land interface areas. A focused approach can effectively implement the 'Healthy Forests' initiative and National Fire Plan, and reduce the resources needed to accomplish the objectives of those initiatives and plans to:

    - Reduce risks to structures and private property.
    - Enhance forest health by promoting older-forest structure and wildlife
    - Maximize the overall effectiveness and cost effectiveness of those practices.

- Consider habitat management practices particularly in important wildlife habitat management areas for species listed as Management Indicator Species (MIS).

EPA'S DEIS Rating

EPA evaluates the potential effects of proposed actions and the adequacy of the information in a DEIS. The DEIS is rated "EC-2" (environmental concerns, insufficient information) under EPA's ratings criteria (enclosed). The "EC" rating means that the Alternative does not require substantial changes, but EPA has identified environmental impacts that should be avoided to fully protect the environment. The EC ratings are based on EPA's concerns regarding the potential adverse impacts to water quality, soil erosion, and wildlife habitats, and MA designation. The potential for significant environmental degradation can be reduced by modifying the Preferred Alternative to (1) enhance actions in the wildland-urban interface zone, (2) reduce the overall impacts from timber harvesting in important wildlife habitats, and (3) encourage natural succession to mature ponderosa pine forest structure in back country and important wildlife habitats. The "2" rating means that the DEIS lacked sufficient information to thoroughly assess an alternative with the potential to achieve objectives to minimize fire risk while minimizing or fully mitigating the adverse environmental impacts to soil, water, wildlife, and other resources. Impacts to those resources could be quantified and better described in the Final EIS.

If you have any questions or would like to discuss our comments, please contact Brad Crowder of my staff at (303) 312-6396 or by email at crowder.brad@epa.gov.

Sincerely,

Larry Svoboda
Director, NEPA Program
Office of Ecosystems Protection and Remediation

Enclosures

EPA Specific Comments
Dean Project Area Draft Environmental Impact Statement
Black Hills National Forest, Bearlodge Ranger District

Soil Erosion and Water Quality

The lack of information about potential water quality impacts, combined with an extremely high road density (5.27 miles per square mile of land area), is the basis of EPA's most significant concerns about the Project.

Severe adverse impacts are described for the streams and related resources that are mentioned in the DEIS. However, we did not see actions proposed in the Preferred Alternative that are likely to resolve any of the significant stream, riparian, soils, and vegetation impacts that are described (e.g., pages 3-10 to 3-23). The description of mitigation measures and BMPs would not seem likely to improve existing conditions, and the conclusion on page 3-20, that the aggressive management actions proposed under the Preferred Alternative will not affect water quality (and other resources), is not quantitatively or qualitatively substantiated. We believe that adverse impacts that are noted to be occurring are likely to remain unresolved and aggressive removal of vegetation and additional road improvements and use have the potential to cause further degradation of streams and related aquatic resources.

We would like to have seen quantified estimates of the proposed Project on soil erosion, sedimentation, and aquatic ecosystems, as was previously done for soils and sediment in the Black Hills National Forest's "Elk, Bugs and Fuels Project." That project is similar to this proposal in its Purpose and Need and provided quantified information to determine the relative environmental impacts to those resources. Without quantified or qualitative analysis of the current aquatic environment and potential Project impacts, soil and water resources are primary concerns for EPA. Please provide additional information in the Final EIS to determine the project's overall effects to soil and water resources and their environmental significance, and to determine whether additional mitigation practices may be practical.

On page 3-10, the DEIS notes that violations of water quality standards have been detected in the analysis area. There is no information to indicate how many streams and other water bodies have been evaluated by the State and the Forest Service, or whether waters in the Project Area and downstream are meeting their designated uses. The description of channel morphology (pages 3-10 to 3-11) indicate that flood events and mass bank failures, heavy sediment loads and channel alteration have occurred after flood events in North Redwater Creek, for example. Grazing also was noted to have adverse impacts to several streams.

EPA recommends that larger trees be retained to the extent possible to retain the most fire resistant trees thereby promoting long-term soil retention, as well as other ecological benefits.

Roads and Transportation Management

It would be helpful to understand the impacts from roads on recreation access and activities, wildlife habitat, erosion and sedimentation, and other resources and activities. This

Project Area has perhaps the highest road density of any Forest Service project EPA has ever reviewed, at 5.27 miles per square mile (page 3-24). Some detrimental effects of roads include habitat fragmentation, water channelization, sediment transport, noxious weed transport and dispersal, and increased human use and concentration.

We believe that there should be substantial commitment to reducing the number of roads as part of implementing the Preferred Action. Road obliteration also would support the fire risk reduction objectives of the Project, particularly if located near private lands that are vulnerable to ignition from motor vehicles and recreation adjacent to them. We appreciate the stated commitment to decommission and close unclassified roads as funding becomes available. The FEIS should indicate specific objectives and timetables to give the public and decision-makers better information about how strong the commitment is to obliterate unneeded roads. Such information may include whether and how many miles of decommissioned roads will be obliterated over time by being ripped, re-contoured, re-seeded, gated and monitored, or a combination of these techniques.

For new roads constructed near existing residential and other private lands to create proposed fuel breaks, the risks of adverse impacts will increase both in those areas and in more easily accessed back country areas. Greater noise and other nuisances for nearby residents also may occur if new roads near private lands are kept open following the project's completion.

Fire and Fuel Hazard Reduction

It would be helpful if the Forest Service quantifies in the FEIS how much land adjacent to or near private property will be treated under each alternative, to evaluate their effectiveness. For example, we noted no evaluation of private property protection from the Preferred Alternative in Section 3.4.2 of the DEIS. Quantified measures would support the DEIS's objectives and be consistent with the P.L. 107-206 requirement to thin stands within 200 feet of private property. We did not note where that effectiveness – to treat lands near private property and wildland-urban interface zones – was evaluated. Hence, we do not know how effectively the Preferred Alternative may protect structures and other important resources from potential fire risks. EPA believes that management actions to reduce the risk of wildfire are most likely to be successful where protection is focused on wildland-private land interface zones and near structures or important recreation and cultural resources. Allowing for more natural forest succession in other areas that do not have urban use values would better support wildlife habitat and other goals, such as old-forest structure and water quality.

Given the evolving understandings about fire management and the conflicting anecdotal information and science on fire behavior, EPA urges the Forest Service to consider setting priorities for treatments where the effectiveness for fire prevention is maximized and adverse environmental impacts may be minimized. One such approach would be to:

- First treat areas near and adjacent to private property and recreation facilities for fire and MPB beetle infestation by using mechanical thinning, prescribed fire, bait and sanitation cutting, and fuel breaks.

- For areas that are managed for commercial timber production, emphasize harvest first in those areas that have system roads and minimize the impacts to important wildlife habitats and aquatic ecosystems.

- In other areas, consider allowing ponderosa pine systems to move towards late succession forest, as recommended by the Wyoming Game and Fish Department (page 1-14). This can be accomplished over the project area by limiting management practices (for example, using prescribed fire) or, where possible, by eliminating active management. The goal for such practices would be (1) to enhance wildlife habitat and other ecological values in areas that are most important to sensitive and important wildlife, and (2) to study fire risk and behavior in naturally succeeding areas.

Aggressive forest fire suppression, especially when combined with the effects of extensive livestock grazing, can result in a thicker, less diverse forest that is more prone to stand-replacing fire events and related risks such as large-scale beetle infestations. Timber harvesting and thinning will result in more uniform spacing, species and age class and lead to greater need for active management of fuels in the future, such as repeated thinning that suppresses natural succession. If a project goal is to create conditions which will make high-intensity crown fires and insect epidemics less likely to develop in the future, some studies suggest that beyond the first few years of extensive tree mortality from fine fuel input from standing dead trees, the risk of large-scale wildfire decreases again to background levels (e.g., Schmid and Mata 1996).

Noxious Weeds

Noxious weeds were noted to infest over 80 percent of Forest lands in the Black Hills National Forest, but only 1,500 acres of the Project Area, (page 3-69). That means less than 15 percent of the Project Area now is infested, if the data are complete and some lands do not have multiple weed species in the table provided. The Preferred Alternative's aggressive actions in backcountry areas of the Project Area are likely to further exacerbate the noxious weed infestation. This is another reason that we recommend the proposed actions be focused on already disturbed areas adjacent to private lands where the risks of wildlife are a concern for the public. No proposed mitigation for noxious weed dispersal is even provided in the DEIS, concluding that the Preferred Alternative, "... would increase the potential for noxious weed introduction, establishment and spread" (page 3-71).

Fish and Wildlife Habitat

EPA will defer making extensive comments on the Preferred Alternative's likely impacts to fish and wildlife and their habitats. However, based on the conclusions in Section 3.4.6, it appears that there are many adverse, unmitigated impacts to sensitive wildlife. In particular, adverse impacts were noted to northern goshawk, yellow-billed cuckoo, black-backed woodpecker, American three-toed woodpecker, Lewis' woodpecker, loggerhead shrike, northern leopard frog, Black Hills redbelly snake, regal fritillary butterfly, finescale dace, and Cooper's

Rocky Mountain snail. For example, it appears that the density and size of snags, downed woody debris, late succession forest, riparian and aquatic communities, and other resource objectives are not optimal for these sensitive fish and wildlife species. We recommend working with the Wyoming Game and Fish Department and the U.S. Fish and Wildlife Service to reduce and mitigate adverse fish and wildlife impacts.

Environmentally Preferred Alternative

Because of the significant adverse impacts from the Preferred Alternative, EPA recommends that the Forest Service develop a modified version of Alternative B for the Environmentally Preferred Alternative. Please consider selecting such an alternative as the Preferred Alternative. Suggested modifications to reduce adverse environmental impacts and improve project effectiveness include:

- Minimize new road construction for commercial timber harvest along existing system roads and aggressively act to decommission and obliterate unclassified roads and other roads to reduce the overall road mileage in the Project Area. EPA has seen a road density standard of 1 mile per square mile in some projects as a standard that is protective of wildlife habitats, water quality, soils, fish and aquatic habitats, and other resources.

- Minimize cutting and thinning in back-country areas, to protect wildlife habitat to the extent practicable and achieve old forest structure goals.